

WHAT IS CLAIMED IS:

- 5 1. A device for protecting lifting inserts having a tubular body, engageable by lifting means, during embedding thereof in a prefabricated concrete component, comprising: (an elastically deformable element) insertable in a first axial end of the tubular body of a lifting insert arranged to be directed outside from the prefabricated component for engagement with the lifting means, said elastically deformable element being provided so as to accommodate in an axial portion of said tubular body starting from said first axial end; (expansion means) for acting on said elastically deformable element to cause a radial expansion thereof making said elastically deformable element to engage inside walls of said tubular body in order to prevent infiltration of concrete through said first axial end of said tubular body of the lifting insert.
- 10 2. The device of claim 1, wherein said elastically deformable element is shaped so as to be coupled with play, prior to radial expansion thereof, to said axial portion of the tubular body of the lifting insert.
- 15 3. The device of claim 2, comprising traction means, said expansion means comprising two axial abutments with at least one axial portion of a said elastically deformable element being interposed therebetween, said traction means being connected to a first one of said axial abutments and acting on a second one of said abutments, in order to move a first one of said abutments toward the second one, with consequent radial expansion of said at least one axial portion of a said elastically deformable element interposed
- 20 25 between said abutments.
4. The device of claim 3, wherein a first one of said axial abutments is formed by a first plate, which is embedded in said elastically deformable element, proximate to a first axial end thereof arranged to be inserted first in the tubular body of the lifting insert.
- 30 5. The device of claim 4, wherein the second one of said axial abutments

is formed by a second plate, which rests against a second axial end of the elastically deformable element.

6. The device of claim 5, wherein said traction means comprises a screw, having (any) of a head and an axial shoulder provided therealong, which rests against a side of said second plate that is directed away from said elastically deformable element and passes with play through an axial passage of said elastically deformable element, said screw engaging a threaded hole formed in any of said first plate and an element that rests against a face of said first plate that is directed away from said second plate.

7. The device of claim 6, comprising a shaft and sealing means providing a seal against concrete, said elastically deformable element being connected, through the first end thereof that lies closest to said first plate, to said shaft that supports said sealing means, is spaced by said elastically deformable element, and is arranged so as to be engageable inside said tubular body, in a region that is spaced from said first axial end of the tubular body in order to close, in cooperation with said elastically deformable element, said tubular body at a portion thereof which is engageable by said lifting means.

8. The device of claim 7, wherein said sealing means comprises an elastically flexible disk that is supported coaxially by said shaft.

9. The device of claim 8, wherein said disk has a step-like perimetric edge.

10. The device of claim 7, comprising limiting means for limiting flexural deformation of said disk.

11. The device of claim 7, comprising connection means for connecting said elastically deformable element to a formwork of the prefabricated component.

12. The device of claim 11, wherein said connection means is constituted by said screw of said traction means.

13. The device of claim 11, wherein said connection means is constituted by said screw of said traction means, said second plate being constituted by a

wall of the formwork that is crossed by said screw.

14. The device of claim 13, wherein said connection means is interposed between said second plate and a wall of the formwork.

5 15. The device of claim 11, wherein said connection means comprises permanent magnets that are applied to said second plate, said permanent magnets being provided so as to engage a ferromagnetic wall of the formwork.

10 16. The device of claim 11, wherein said screw of the traction means engages a threaded hole formed in said shaft, said shaft engaging against the face of said first plate that is directed away from said second plate.

cont.
A.

1005764-1925704